

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this Preliminary Amendment and the documents referred to as enclosed therewith are being deposited with the United States Postal Service on this date 5/24/01 in an envelope as "Express Mail Post Office to Addressee" mailing label Number EK966291665US addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

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(Signature of person mailing paper)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Ruixi YUAN, et al.

(Rule 1.53(b) Continuation of Application No.
09/098,622, filed June 17, 1998)

Filed: Herewith

For: METHOD AND SYSTEM FOR
CONNECTIONLESS COMMUNICATION IN
A CELL RELAY SATELLITE NETWORK

)
)
) Group Art Unit: Not yet
) Assigned

)
) Examiner: Not yet Assigned

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

PRELIMINARY AMENDMENT

Prior to examination of the above-identified application, please enter the following amendment:

IN THE SPECIFICATION:

Page 1, prior to the paragraph beginning at line 1, please insert the following paragraph:

-- RELATED PATENTS

This is a continuation of application Serial No. 09/098,622, filed June 17, 1998, which is incorporated herein by reference.--

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IN THE CLAIMS:

Please cancel claim 4 without prejudice or disclaimer, amend claims 1, 5, 8-11, and 13 and add claims 14-16 as follows:

1. (Amended) A method for communicating a packet in a communications network comprising a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a first source in the communications network;

generating a cell for each of the segments, wherein each cell includes a first portion and a second portion with a prefix, a downlink beam locator, and a source identifier included in the first portion;

inserting each of the segments into the second portion of each of the generated cells, respectively;

transmitting the generated cells to a node in the communications network via the cell relay satellite without establishing a connection in the communications network, wherein the node receives cells from a plurality of sources; and

identifying the cells from the first source to be included in the packet for reassembly at the node based on the source identifier in the first portion of each of the transmitted cells, such that the packet is reassembled at the node from the identified cells.

5. (Amended) A method for communicating a packet without establishing a connection in a first communications network comprising a cell relay satellite, said method comprising the steps of:

receiving, at a first node in the communications network, a plurality of cells, wherein the plurality of cells has been generated by one or more sources, each cell comprising:

a first portion including a prefix, a downlink beam locator, and a source identifier; and

a second portion including a segment of a packet;

identifying the received cells from one of the one or more sources to be included in the packet for reassembly based on the source identifier in the first portion of the received cells; and

re-assembling the packet from the segments in the second portion of the identified cells.

8. (Amended) A system associated with a satellite earth station for communicating a packet without establishing a connection in a communications network comprising a cell relay satellite, said system comprising:

a memory comprising a packet converter program for segmenting the packet into a number of segments, and for generating a cell for each of the segments, wherein each cell includes a first portion and a second portion, and for including a prefix, a downlink beam locator, and a source identifier in the first portion of each generated cell, and for inserting each of the segments into the second portion of the generated cells, respectively;

a processor for running the packet converter program; and

a transmitter for transmitting the generated cells to a node in the communications network via the cell relay satellite such that the cells to be included in the packet are identified from among cells received from one or more sources for reassembly based on the source identifier in the first portion of each of the transmitted cells and the packet is reassembled at the node from the identified cells.

9. (Amended) A satellite earth station for communicating a packet without establishing a connection in a communications network comprising a cell relay satellite, said station comprising:

a receiver for receiving a plurality of cells from one or more sources each cell comprising:

a first portion including a prefix, a downlink beam locator, and a source identifier; and

a second portion including a segment of a packet;

a memory comprising a packet re-assembler program for identifying the cells as being received from a certain one of the one or more sources to be included in the packet for reassembly based on the source identifiers in the first portion of the received cells and re-assembling the packet from the segments in the second portion of the identified cells; and

a processor for running the packet re-assembler program.

10. (Amended) A computer-readable medium capable of configuring a satellite earth station to perform a method for communicating a packet without establishing a

connection in a communications network comprising a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a first source in the communications network;

generating a cell for each of the segments, wherein each cell includes a first portion and a second portion with a prefix, a downlink beam locator, and a source identifier included in the first portion;

inserting each of the segments into the second portion of each of the generated cells, respectively; and

transmitting the generated cells to a node in the communications network via the cell relay satellite, wherein the node receives cells from a plurality of sources, such that the cells from the first source to be included in the packet are identified for reassembly based on the source identifier in the first portion of each of the transmitted cells and the packet is reassembled at the node from the identified cells.

11. (Amended) A computer-readable medium capable of configuring a satellite earth station to perform a method for communicating a packet without establishing a connection in a communications network comprising a cell relay satellite, said method comprising the steps of:

receiving, at a node in the communications network, a plurality of cells from one or more sources each cell comprising:

a first portion including a prefix, a downlink beam locator, and a source identifier; and

a second portion including a segment of a packet;
identifying the cells as being received from a certain one of the one or more sources to be included in the packet for reassembly based on the source identifiers in the first portion of the received cells; and
re-assembling the packet from the segments in the second portion of the identified cells.

13. (Amended) A method for communicating a packet in a communications network comprising a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a source in the communications network;
generating a cell for each of the segments, wherein each cell includes a first portion and a second portion with a prefix, a downlink beam locator, and a source identifier included in the first portion;
inserting each of the segments into the second portion of each of the generated cells, respectively;
transmitting the generated cells to the cell relay satellite without establishing a connection in the communications network;
receiving cells from a plurality of sources at a destination in the communications network, wherein the received cells include the transmitted cells;
identifying the transmitted cells to be included in the packet for reassembly based on the source identifiers in the first portion of the received cells; and
re-assembling the packet from the segments in the second portion of the identified cells.

--14. (New) A method for communicating a packet in a communications network that includes a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a source in the communications network;

generating for each of the segments a cell that includes a first portion and a second portion;

including in the first portion of each of the cells a prefix, a downlink beam locator, and a source identifier;

inserting each of the segments into the second portion of each of the cells, respectively;

transmitting the cells via the cell relay satellite without establishing a connection in the communications network; and

identifying the cells to be included in the packet for re-assembly based on the source identifier in the first portion of each of the transmitted cells, such that the packet is reassembled at a node in the communications network from the identified cells.

15. (New) A method for communicating a packet without establishing a connection in a communications network that includes a cell relay satellite, said method comprising the steps of:

receiving, at a node in the communications network, a plurality of cells each including:

a first portion including a prefix, a downlink beam locator, and a source identifier; and

a second portion including a segment corresponding to a packet;
identifying in the received cells one or more segments corresponding to the packet based on the source identifiers in the first portion of the received cells; and
reassembling the packet from the identified segments.

16. (New) A method for communicating packets from a plurality of sources in a communications network comprising a cell relay satellite, said method comprising the steps of:

at each source, dividing a packet associated with the source into segments at a source in the communications network;

generating a cell for each of the segments, wherein each cell includes a first portion and a second portion with a prefix, a downlink beam locator, and a source identifier included in the first portion;

inserting each of the segments into the second portion of each of the generated cells, respectively;

transmitting the generated cells to a node in the communications network via the cell relay satellite without establishing a connection in the communications network, wherein the node receives cells from the plurality of sources; and

identifying the cells to be included in the packet associated with each of the plurality of sources for reassembly at the node based on the source identifier in the first portion of each of the transmitted cells, such that the packet is reassembled at the node from the identified cells, wherein the node reassembles packets from a plurality of sources. --

REMARKS

The amendment to the specification has been made in order to identify the application upon which the subject application relies. Applicants cancel claim 4 without disclaimer or prejudice of the subject matter thereof. Moreover, Applicants amend claims 1, 5, 8-11, and 13, and add claims 14-16 to more appropriately claim the present invention.

Accordingly, Applicants respectfully request favorable examination of this application.

If there is any fee due in connection with the filing of this Preliminary Amendment, please charge the fee to our Deposit Account No. 07-2339.

Respectfully submitted,

Dated: 8/24/2001

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APPENDIX TO PRELIMINARY AMENDMENT FILED

IN THE CLAIMS:

1. (amended) A method for communicating a packet in a communications network comprising a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a first source in the communications network;

generating a cell for each of the segments, wherein each cell includes a first portion and a second portion with a prefix, a downlink beam locator, and a source identifier included in the first portion;

inserting each of the segments into the second portion of each of the generated cells, respectively; [and]

transmitting the generated cells to a node in the communications network via the cell relay satellite without establishing a connection in the communications network, wherein the node receives cells from a plurality of sources; and

identifying the cells from the first source to be included in the packet for reassembly at the node based on the source identifier in the first portion of each of the transmitted cells, such that the packet is reassembled at the node from the identified cells.

5. (amended) A method for communicating a packet without establishing a connection in a first communications network comprising a cell relay satellite, said method comprising the steps of:

receiving, at a first node [destination] in the first communications network, a plurality of cells, wherein the plurality of cells has been generated by one or more sources, each cell comprising:

a first portion including a prefix, a downlink beam locator, and a source identifier; and

a second portion including a segment of a packet;

identifying the received cells from one of the one or more sources to be included in the packet for reassembly based on the source identifier in the first portion of the received cells; and

re-assembling the packet from the segments in the second portion of the identified [received] cells.

8. (amended) A system associated with a satellite earth station for communicating a packet without establishing a connection in a communications network comprising a cell relay satellite, said system comprising:

a memory comprising a packet converter program for segmenting the packet into a number of segments, and for generating a cell for each of the segments, wherein each cell includes a first portion and a second portion, and for including a prefix, a downlink beam locator, and a [node] source identifier in the first portion of each

generated cell, and for inserting each of the segments into the second portion of the generated cells, respectively;

a processor for running the packet converter program; and

a transmitter for transmitting the generated cells to a node in the communications network via the cell relay satellite such that the cells to be included in the packet are identified from among cells received from one or more sources for reassembly based on the source identifier in the first portion of each of the transmitted cells and the packet is reassembled at the node from the identified cells.

9. (amended) A satellite earth station for communicating a packet without establishing a connection in a communications network comprising a cell relay satellite, said station [system] comprising:

a receiver for receiving a plurality of cells from one or more sources each cell comprising:

a first portion including a prefix, a downlink beam locator, and a source identifier; and

a second portion including a segment of a packet;

a memory comprising a packet re-assembler program for identifying the cells as being received from a certain one of the one or more sources to be included in the packet for reassembly based on the source identifiers in the first portion of the received cells and re-assembling the packet from the segments in the second portion of the identified [received] cells; and

a processor for running the packet re-assembler program.

10. (amended) A computer-readable medium capable of configuring a satellite earth station to perform a method for communicating a packet without establishing a connection in a communications network comprising a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a first source in the communications network;

generating a cell for each of the segments, wherein each cell includes a first portion and a second portion with a prefix, a downlink beam locator, and a source identifier included in the first portion;

inserting each of the segments into the second portion of each of the generated cells, respectively; and

transmitting the generated cells to a node in the communications network via the cell relay satellite, wherein the node receives cells from a plurality of sources, such that the cells from the first source to be included in the packet are identified for reassembly based on the source identifier in the first portion of each of the transmitted cells and the packet is reassembled at the node from the identified cells.

11. (amended) A computer-readable medium capable of configuring a satellite earth station to perform a method for communicating a packet without establishing a connection in a communications network comprising a cell relay satellite, said method comprising the steps of:

receiving, at a [first destination] node in the communications network, a plurality of cells from one or more sources, each cell comprising:

a first portion including a prefix, a downlink beam locator, and a source identifier; and

a second portion including a segment of a packet;

identifying the cells as being received from a certain one of the one or more sources to be included in the packet for reassembly based on the source identifiers in the first portion of the received cells; and

re-assembling the packet from the segments in the second portion of the identified [received] cells.

13. (amended) A method for communicating a packet in a communications network comprising a cell relay satellite, said method comprising the steps of:

dividing the packet into segments at a source in the communications network;

generating a cell for each of the segments, wherein each cell includes a first portion and a second portion with a prefix, a downlink beam locator, and a source identifier included in the first portion;

inserting each of the segments into the second portion of each of the generated cells, respectively;

transmitting the generated cells to the cell relay satellite without establishing a connection in the communications network;

receiving [the transmitted] cells from a plurality of sources at a destination in the communications network, wherein the received cells include the transmitted cells;

identifying the transmitted cells to be included in the packet for reassembly based
on the source identifiers in the first portion of the received cells; and
re-assembling the packet from the segments in the second portion of the
identified [received] cells .